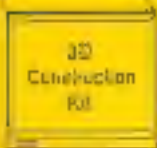


# 3D CONSTRUCTION KIT

LEARN GROUP

NEW LETTER

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## EDITORIAL

Welcome to issue 17 of the 3D Construction Kit User Group Newsletter.

I have still not recieved the latest version of Kit 2 which I promised would be with you in January which is extremely frustrating. I know that the Amiga and PC version has already been playtested by Mieke Van Der Poll - bless her - so I am sure that it shouldn't be too long now. The Atari ST version hasn't been sent for playtest and I assume that they are working to complete the first two versions first. They did say that the Atari version would be a little later. My phone has been red hot and my ears have been burning recently. I wish I could do something to hurry things up a bit but I can only wait, like you, as patiently as I can. I am sorry to have to ask for your patience once again but I assure you that I will be posting them out to those who have requested them just as soon as I do receive them.

After all this time I am happy to report that I am now working furiously on my own 3D Kit game. There just never seemed to be time to do it before but I am determined to complete it just as soon as I can. I am using Kit 1 at the moment but when Kit 2 is finally ready I intend to transfer the datafile over to that and enhance it considerably. I think that seeing some of the recent PD games that you have done has spurred me into action. They are really good and the ideas and features they contain are remarkable. I will have to work extremely hard to keep up to the standard that has been set. Tony Hartley has just sent me his ULTIMATE DETAIL disk and the objects he has created have to be seen to be believed they are so realistic!

Apart from working on my game - interspersed with sessions on SIM CITY - trying to get to the status of Megamatropolis, I did take some time off when I awoke one morning recently to find the town under a few inches of snow. Great opportunity for some snowball fights with the children and the dog. The dog was more fun as he doesn't throw any back at me. Can't understand what has happened to my aim - I used to be good at snowball fights when I was younger. The same thing seems to have happened as with my dexterity on a joystick. Why, I wonder, is it that young teens can belt along, hopping from one platform to another, shooting everything in sight on these games and when it is my turn I belly flop into the water and die or walk straight into the first baddie I come across. Folks, I am getting past it. Mind you, when it comes to a strategy or adventure games I can still knock spots off them!

I recently decided to blitz the computer room and everything is so neat and tidy I keep thinking I have walked into the wrong room. Only trouble is that I can't seem to find anything I want now. It seemed to be so easy when everything was buried under a pile of papers, magazines and disks but now everything is neatly filed away I have lost practically everything I need!

Ah well, I'll get used to the new arrangement soon. I see the bottom of the page rapidly approaching so I think I had better stop waffling on like this and let you get on with reading the rest of the newsletter. I hope you enjoy it and find it interesting and informative.

Bye for now!

*Mandy*

## LETTERS

*Dear Mandy*

After being almost reduced to tears, I finally worked out what was wrong and brightened up considerably! I am, of course, talking about trying to make a cube chasing after me while I move around inside a world. Although you know all about this no-one else will so I'll explain. In issue 3 on page 21, Brian Woodley explains how to make an object chase after you, BUT the explanation is for 3D Kit 1, and although this isn't stated, in those days there was no Kit 2. In issue 7, page 23, Mandy explains the same routine, in detail, to Christopher Batchlor. Anyway, in issue 3 there is a fatal spelling mistake, the variable V40 is written just as 40. This mistake, however, is not made in issue 7. So, once that was sorted out, and everything was set up to work fine, I pressed reset, and low and behold what happens? Nothing. Unless of course you count the fact that the computer flung me to one edge of cuboid 1 and stuck me there so that I could only move left, right and up. The cube did follow though, but only on the X axis. It kept itself on the opposite side of the area. (Was it something I said?). So a phone call to Mandy later, and I'd worked out the problem. Maybe. The so called Area Condition, which on Kit 2 doesn't exist is actually a Local Condition, so with that fixed what more could go wrong? The SETVAR commands (as best as I can remember), are supposed to be in General Condition 1 for Kit 1 but on Kit 2 this is not the case. The General Conditions are checked every time the screen is updated. This means that by telling the computer where the cube starts after every screen update and setting the variables that move the cube to these coordinates, there is bound to be a problem and of course there was! What needs to happen is that the computer is only told the co-ordinates at the time of reset so, to anyone who knows anything about 3D Kit 2, the obvious answer is to put these SETVAR commands into the Initial Conditions, and hey presto, one rampaging cube. The reason that I have explained this problem of putting 3D Kit 1 routines into 3D Kit 2, in detail, is so that anyone else having this problem or one like it can see exactly how it is fixed and I hope this will help somebody, somewhere. Thanks for the help, Mandy.

*Alastair Pack - Old Colwyn - PC Kit 2*

Thanks for thinking of your fellow users who might be struggling with this kind of problem, Alastair. Yes, in Kit 1 the General Condition 1 is equivalent to Initial Conditions in Kit 2. As you say, when the earlier Newsletters were published Kit 2 didn't yet exist and so no explanation was forthcoming for Kit 2 users.....Mandy

*Dear Mandy*

I am really looking forward to the upgrade and the possibility of using more of my PC's available memory than the present version can, not to mention the bug fixes! While I have fingers to keyboard, maybe you could point me in the right direction with a problem I recently encountered. It was only the other day that I used the 3DMAKE utility for the first time as I wanted to send my world to a third party for them to view. Now I've only scratched the surface of the FCL and so the problem I came across might be in my use of it. I'd developed an environment with associated border and controls which started off with a video swirling around on a viewpath giving a tour of the first area. Once you had settled back to earth again the controls were in your hands. I remember reading in the User Group magazine how to place controls on the border. The problem for me, and others it seemed, was making the border visible to enable this. The trick was to press the



"ESC" key after choosing the border to pop it up. Simple, though sometimes there seems to be a rather long wait! Anyway I implemented the "video" by setting up an Initial Condition which used the SEQUENCE (1) command to make it run. My problem came after creating the stand-alone disk. As soon as the world loaded it began to run the "video". All was fine except that the border wasn't visible. Once the sequence had run you could press "ESC" and sure enough the border popped up, as did a re-run of the video. How do I set things up so that the border loads straight away and I don't have to press "ESC" or watch the tour twice? Is this just me making a fundamental flaw in my understanding of the concept?

**Nigel Alefounder** - PC Kit 2

I was nearly tearing my hair out in frustration trying to solve this problem for you, Nigel. I finally gave up and went to talk to "the man who knows" - Paul Gregory at Incentive. "Yes," he said, "You do have to press ESC - for the moment that is." That remark leads me to believe that the final version may be programmed to overcome that problem. "However," he continued, "One way around the problem is the use of a variable that is not reset and there is such a one. On page 77 or the manual (11.3) you will see that variable 255 is not reset because it is used in conjunction with the LOADWORLD command. If you don't want the video sequence to run more than once you should use that variable in your FCL command to be something like this:

```
COMMAND.....
COMMAND..... - (whatever the previous commands are)
IF VAR=? (V255,0)
THEN SEQUENCE (1)
SETVAR (1,V255)
ENDIF
```

That way the program will firstly check if the video sequence has already been played before acting and if it has then it will not be played. Hope this helps.....Mandy

**Dear Mandy**

I would like to know if you have a conversion guide to convert 3D Kit to the Sam Coupe computer. I converted DRILLER some time ago but can't use the save/load game in progress? Even better, would you as a group, convince Incentive to bring out a Sam Coupe specific program so "Sam" users can then create their own program? If you have never heard of the Sam Coupe it is alive and well and is shipped from Swansea and I'll gladly give you help, names and addresses etc if you can help me.

**Brian Harriman** Durham - Spectrum/Sam Coupe

**Dear Mandy**

I own a Spectrum version of 3D Kit and have various Spectrum computers and I also have a Plus D Interface with disk and I use a snapshot utility to transfer games to disk - I assure you I DON'T use this to infringe copyright but to speed up loading and saving. I would like to know if it is possible to convert 3DCK to work with disk drives, I know it has a disk option but this is for the +3. To be given this option in my program would be very helpful to me as I use my Plus D most of the time. I also own a Sam Coupe and would like to know if 3DCK is available for the SAM but not run under emulation?

**C. G. Urwin** Spennymoor, Co Durham - Spectrum/Sam Coupe

I am afraid that there is nothing that can be done to help with the disk problem as the only disk version was for the +3 and even that is no longer available. Unfortunately, neither Incentive or Domark have

any plans to produce any other 8 bit versions of 3D Kit and so Sam Coupe users will have to stick to emulation. The Sam Coupe computer is a great machine and, in my opinion, was produced just too late to make the impact on the market that it would have had, had it come out before the Atari ST and Amiga took such a huge chunk out of the market. It was sadly ignored by the software companies and programmers and it is a pity that shortly after production it forced owners to struggle to keep it alive and well with dedicated groups of enthusiasts. I'm sorry that I cannot help with your problems....Mandy

**Dear Mandy**

We are all hoping that you haven't been flooded out again with all the terrible weather we see on the news! I'm writing for my son Tom, who is the actual user of the 3D Kit, he is trying to contact a Society in England called ANIME UK LTD. It has to do with Japanese "Manga" films; mostly computer generated. I wondered if, with all your contacts in the computer world you might know of anyone who knows the society and where we could contact them? I think that they are based in Birmingham. I am hoping that you can help and sorry to bother you and I know you are up to your eyes in the magazine, but I don't know who else to ask! Our part of Holland is SO behind the times - there is no chance of anyone here having a clue. Thanks.

**Sue Rixom**

Dr. A. Kuyperstraat 20, 7556-DX Hengelo (0), Holland

I tried directory enquiries for the Birmingham and surrounding area for the name of the company so that I could ring them for details for you but apparently they are not listed anywhere in that or West Midlands area. I have not heard of them myself so I am printing your letter here, with your full address, just in case any other member has heard of them and can help you out.....Mandy

**Dear Mandy**

Firstly I would like to wish you and fellow members a Happy New Year. And a drier one than '93! That you kept a level head (so it seems!) throughout all your problems and still managed to produce a newsletter, is a testimony to a true professional. Secondly, thanks to Mieke Van Der Poll for going to the trouble of offering help with my palette problems, via the newsletter. Until the latest version of the Kit arrives I'm still using version V2.03 so the enhancements to the colour facilities are, tantalizingly, just around the corner! I do use Deluxe Paint II (the un-enhanced!!) so it's colour options are slightly more primitive, but as it is a great little program which has no compatibility problems with 3D Kit - and what's more came free with my mouse! - I'm happy to stick with it until the enhanced version comes along similarly bundled.

As it is the start of the year I'd like to waffle on a bit about the last 3D Kit Year over here on the borders. It started, I seem to remember, with a less than complimentary review of the Kit in PC Format. The writer made a fundamental mistake by comparing it with dissimilar packages of vastly differing prices, in an attempt to provide an overview of what 3D Software was generally available. These were all PC based and varied from approximately £2,500 down to the "humble" Kit at £50. I could go on for ages berating them for their lack of vision and comprehension about the Kit's philosophy, but it would only serve to increase my stress levels! The "reason to be" of the Kit, to my mind, is that it offers 3D environment building, albeit at a relatively low resolution, with real-time walk-through. This last, none of the reviewed packages could offer. Sure the high-end program is the most sophisticated all-round 3D package going but



it still works on the "render-a-frame-and-save-then-join-together-and-make-a-movie" method. The computer needed to run it efficiently is an awesome beast.

With the Kit Dimension have broken new ground in the home computer field. We have the only program in it's class. No one else has produced a real competitor. Before people grumble too much about the product and the "bugs" we've all come across while working away in front of our screens, it might be wise to ask what else you are going to get to do the same job? I have heard of another program at about \$400 but it doesn't have a programming language. For PC users there is, of course Dimensions wonderful SUPERSCAPE which offers broadly the same facilities as the Kits - and then some! However it is expensive too and a commitment is needed to acquire the necessary funds - unless you happen to have a lot to spare.

Later in the year I made use of Mark Rose's excellent PC public domain library. Not only does he have oodles of interesting 3D Kit files but also plenty of other graphics related stuff. You won't find a PD library in any of the magazines which offers the value for money Mark does! Use him before he decides that no-one is interested and packs-up! We also corresponded about other 3D computer topics and if you have a PC this is the chap to ask if you want to find the answer!

Tony Hartley contacted me after I mentioned using an Atari datafile of his (FASTTOWN) on my PC. We beavered away experimenting with the notion of using 3D Kit datafiles on different machines to the ones they were created on. The post was busy for many weeks and you've probably read the results.

Then as November loomed (or is that gloomed?!) I had the same problem as Steve Frampton had with the Kit's 3D Make utility, as he mentioned in the Dec/Jan newsletter. In my case the border was on my hard-disk and I didn't notice the stand-alone disk was reading it in from there when I tested it. I subsequently sent a demonstration out to an archaeological unit I've been talking to about a reconstruction I was working on, only to realize that the nifty border I had designed, along with all the control icons, wasn't loaded - oops! I managed to fool the programme into locating the border on the destination disk and all worked fine. I hastily sent an upgrade...

All in all then an eventful year and good fun! The prospect you've hinted at - that there may be more 3D Kit developments to come, has set me speculating what these maybe, but as they're "top-secret" I don't expect you'll let slip yet! So roll-on 94!

*Nigel Alefounder* - PC Kit 1 and Kit 2

MORE LETTERS NEXT ISSUE

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The latest version of Kit 2 has been mentioned a few times in the letters so I had better give you a progress report. There has been a bit of a delay - do I sound like a cracked record? - and, despite promises that it would be out in early January - 'twas not to be. However, I know that Mieke has done a thorough playtest and returned the disks for Amiga and PC to the programmers and I am now expecting them any day now. I'll do what I promised and fill up the mound of jiffy bags you have all sent me and post the final version as soon as I get my eager hands on it. I'm making no promised as to the date though as I seem to cast a jinx on things when I do!.....Mandy

\*\*\*\*\*

## THE USER GROUP GAME

This issue by *Mieke Van Der Poll*

### PART NINE:

HOW TO CREATE AND USE A BORDER IN A STAND ALONE 3DKIT GAME  
Using the Instruments/Inventory variables in General Conditions

Last issue we designed the border and defined the instruments used in it. We even made a beginning with General Condition No 1 (3D Kit 2: Initial Condition). Let us take a closer look at this General Condition: Under General click on Edit Condition and click twice on Condition 1. We already typed the UPDATEI (Instrument number) commands in it and by doing so the variables tied to them are automatically set to zero. So we do not have to type in a separate SETVAR command.

For the Inventory Routine we do not have to set the different variables to zero either because this will be done in the three General conditions we are going to use for this routine. As those conditions handle the objects found also, their variables do not have to be set to zero either.

So for our purpose we do not have to add anything more to the General Condition 1 (Initial Condition). Click on the cross icon (lowest left in the text window) to leave the Condition. Whenever you want to check a General Condition just call it under the General Menu to edit it and by pressing the arrows down and up on your keyboard or click on the relevant icons in the left of the text window you can scroll through the text and perhaps change something. When you do not change anything you can click on the cross icon down left but when you do change something you have to confirm this by clicking on the tick icon upper left or press Shift and Enter/Return. (In 3D Kit 2 you edit the relevant condition and just click on cancel when you didn't change anything or on OK when you did).

We are now going to make a General Condition for the Timer-bar:

#### KIT 1

Create Gen.Cond.2  
Edit Gen. Cond.2  
Type in the following:

```
IF TIMER?
THEN ADDVAR (1,V30)
ENDIF
IF VAR=? (V30,1000)
THEN
PRINT ("YOU RAN OUT OF TIME",5)
SOUND (16) (antibonus snd PC)
DELAY (150)
PRINT ("",5)
ENDGAME
ENDIF
```

#### KIT 2

Create Gen. Cond. 1  
Edit Gen. Cond. 1  
Type in the following:

```
IF TIMER?
THEN ADDVAR (1,V30)
ENDIF
IF VAREQ? (V30,1000)
THEN
PRINT ("YOU RAN OUT OF TIME",5)
SOUND (16) (antibonus snd PC)
DELAY (150)
PRINT ("",5)
ENDGAME
ENDIF
```

We can make almost the same condition for the Energy bar:



## KIT 1

Create Gen. Cond. 3  
Edit Gen. Cond. 3  
Type in the following:

```
IF VAR>? (V31,1000)
THEN
PRINT("YOU RAN OUT OF ENERGY",5)
SOUND (16)
DELAY (150)
PRINT("
",5)
ENDGAME
ENDIF
```

The loss of our energy is connected to, for instance, objects we collide with, how many times we are shot or other events that create the loss of energy. So this will also depend on OBJECT CONDITIONS.

The Score and Found-bar are connected to objects we can pick up and, in larger games to more puzzles or missions to solve which will increase the score for instance. We do not have to make General Conditions for these two, but later on we make Object Conditions and add numbers to the Found-bar and Score variables.

The Inventory Box in the border, however, needs three General Conditions. The first one is connected to the X and Y coordinates of the inventory box and the left or right mousebutton pressed in that area of the border.

In our border the Inventory Coordinates are:

X= 10 to 95 (upper left to upper right part)  
Y= 130 to 165 (upper and lower part)

With this condition we also use the System Variables V17 and V18, whereas V17 = X coordinate mouse button(s) pressed and V18 = Y coordinate mouse button(s) pressed.

## KIT 1

Create Gen. Cond. 4  
Edit Gen. Cond. 4  
Type in the following:

```
IF VAR>? (V18,130)
AND VAR<? (V17,95)
THEN
IF VAR<? (V18,165)
AND VAR>? (V17,10)
THEN SETVAR (0,V17)
SETVAR (0,V18)
SOUND (17) (chink snd PC)
IF VAR=? (V36,0)
THEN SETVAR (1,V36)
SOUND (17)
ENDIF
ENDIF
ENDIF
```

## KIT 2

Create Gen. Cond. 2  
Edit Gen. Cond. 2  
Type in the following:

```
IF VARGT? (V31,1000)
THEN
PRINT("YOU RAN OUT OF ENERGY",5)
SOUND (16)
DELAY (150)
PRINT("
",5)
ENDGAME
ENDIF
```

Create Gen. Cond. 3.  
Edit Gen. Cond. 3  
Type in the following:

```
IF VARGT? (V18,130)
AND VARLT? (V17,95)
THEN
IF VARLT? (V18,165)
AND VARGT? (V17,10)
THEN SETVAR (0,V17)
SETVAR (0,V18)
SOUND (17) (chink snd PC)
IF VAREQ? (V36,0)
THEN SETVAR (1,V36)
SOUND (17)
ENDIF
ENDIF
ENDIF
```

There are three IFs so we have three ENDIFs. The variable V36 is connected to the mousebutton(s) click.

## KIT 1

Create Gen. Cond. 5  
Edit Gen. Cond. 5  
Type in the following:

```
IF VAR=? (V36,1)
if the mouse button has been clicked
THEN SETVAR (2,V36)
then confirm this and
SETVAR (0,V34)
variable connected to number of objects found
SETVAR (0,V35)
connected to the object variable
PRINT ("INVENTORY FOLLOWS...",5)
DELAY (150)
PRINT ("
",5)
ENDIF
```

Create Gen. Cond. 6  
Edit Gen. Cond. 6  
Type in the following:

```
IF VAR=? (V36,2)
if click confirmed and inventory follows: Printed
THEN ADDVAR (1,V34)
then add 1 object
IF VAR=? (V34,1)
if object 1 is there
THEN IF VAR=? (V37,1)
if object 1 is taken
THEN ADDVAR (1,V35)
add object 1 to this variable and...
PRINT ("YOU CARRY:- A KEY ",5)
DELAY (150)
PRINT ("
",5)
END
ENDIF
ENDIF
ENDIF
IF VAR=? (V34,2)
if object 2 is there...
THEN IF VAR=? (V38,1)
then if object 2 is taken...
THEN ADDVAR (1,V35)
then add object 2 to this variable
PRINT ("YOU CARRY:- A TORCH ",5)
DELAY (150)
PRINT ("
",5)
END
ENDIF
ENDIF
ENDIF
IF VAR=? (V34,3)
THEN IF VAR=? (V39,1)
THEN ADDVAR (1,V35)
PRINT ("YOU CARRY:-A CRYSTAL",5)
```

continued next page.....

## KIT 2

Create Gen. Cond. 4  
Edit Gen. Cond. 4  
Type in the following:

```
IF VAREQ? (V36,1)
THEN SETVAR (2,V36)
SETVAR (0,V34)
SETVAR (0,V35)
PRINT ("INVENTORY FOLLOWS...",5)
DELAY (150)
PRINT ("
",5)
ENDIF
```

Create Gen. Cond. 5  
Edit Gen. Cond. 5  
Type in the following:

```
IF VAREQ? (V36,2)
THEN ADDVAR (1,V34)
IF VAREQ? (V34,1)
THEN IF VAREQ? (V37,1)
THEN ADDVAR (1,V35)
PRINT ("YOU CARRY:- A KEY ",5)
DELAY (150)
PRINT ("
",5)
END
ENDIF
ENDIF
ENDIF
IF VAREQ? (V34,2)
THEN IF VAREQ? (V38,1)
THEN ADDVAR (1,V35)
PRINT ("YOU CARRY:- A TORCH ",5)
DELAY (150)
PRINT ("
",5)
END
ENDIF
ENDIF
ENDIF
IF VAREQ? (V34,3)
THEN IF VAREQ? (V39,1)
THEN ADDVAR (1,V35)
PRINT ("YOU CARRY:-A CRYSTAL",5)
```



```

DELAY (150)
PRINT ("
END
ENDIF
ENDIF
IF VAR=? (V34,4)
THEN SETVAR (0,V36)
SETVAR (0,V34)
IF VAR=? (V35,0)
THEN
PRINT ("YOU CARRY:-NOTHING ",5)
DELAY (150)
PRINT ("
SETVAR (0,V35)
ENDIF
ENDIF
ENDIF

```

```

DELAY (150)
PRINT ("
END
ENDIF
ENDIF
IF VAREQ? (V34,4)
THEN SETVAR (0,V36)
SETVAR (0,V34)
IF VAREQ? (V35,0)
THEN
PRINT ("YOU CARRY:-NOTHING ",5)
DELAY (150)
PRINT ("
SETVAR (0,V35)
ENDIF
ENDIF
ENDIF

```

The last ENDIF is connected with the beginning lines of the condition.

The last condition statement in the above General Condition does check if any objects are taken at all and, if not, it will print the relevant message on screen and the relevant variables are set to zero. This statement must always be placed at the END of the General Condition.

If you have more than three objects to pick up in your game, say for instance six objects, you first have to add the other three into this condition. This means that three more numbers are added to the Variable 34 before you arrive at the last condition statement. So the last statement then begins with:

```

IF VAR=? (V34,7)
IF VAREQ? (V34,7)
instead of (V34,4)

```

So the more objects you have the higher the number of V34 will be in the last condition statement.

Create some objects in Area 1 and try to give them an object condition to pick them up. Set the relevant variable to 1 if the object has been picked up. Click in the Inventory box to see if the right message comes up. As you remember we used three object variables: V37, V38, V39.

For instance:

```

IF ACTIVATED?
THEN
PRINT ("YOU PICK UP A KEY...",5)
SOUND (13)
DELAY (150)
PRINT ("
INVIS (2)
SETVAR (1,V37)
ADDVAR (1,V32) add 1 to found variable V32
ADDVAR (100,V33) add 100 to score var. V33
ENDIF

```

You will see the number 1 in the found-instrument and the number 100 in the score-instrument. When you click on the Inventory-box the message should read:

Inventory follows:- You carry: a key

Try a condition on an object to add numbers to the energy variable. Take for instance object 3:

```

IF SHOT?
THEN ADDVAR (100,V31)
ENDIF

```

Shoot it 11 times and check if your General Condition to this variable works alright.

if all is well, you should see your time-bar moving as time goes by... When it reaches the number 1000 the relevant message pops up and the game is reset.

You now have a basic construction to help you create a game of your own.

Up until now we are, when in Test Mode, only capable of moving around using the keyboard. For instance Key O moves us forwards and key K moves us backwards. See the manual for other movement keys. We still have to define the movement icons for our mouse. We will do this next time, but perhaps you can, with the aid of your manual, define them yourself already. Next time we are going to try and make the User Group Game respond to all this programming and then make the Game into a Stand Alone one!

TO BE CONTINUED NEXT ISSUE.....

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## THE USER GROUP GAME IDEAS FOR THOSE FINISHING TOUCHES

By *Tony Hartley*

As you can see we are almost at the end of our programming. Another issue and we will be just about finished with our game. The game will look a lot better with a few finishing touches added. It is your game and your choice and I am not telling you what to do but merely giving you a few ideas.

### COLOUR

The game will look a lot better with some suitable colours for each of the areas.

### GENERAL POINTS OF COLOUR

Think about where the light source is coming from in each of your areas. All the faces of objects facing the light source should be a lighter shade than those faces that are not. Also add a lighter shade of colour around windows and the floor where the light hits. Try a little lighter colour on the floor at the bottom of doors to give the impression of light shining underneath the door. Just put a rectangle



on the floor in front of the door and use a lighter colour than the floor colour on it. The dark Alchemists Chamber would be ideal for this!

#### THE DUNGEON - AREA 6

Because it is a dungeon it does not mean that it has to be all black and grey. You could use shades of dark purples (yes, purple) and dark blues to give a very realistic effect of a darkly lit area. Near the top of the stairs you can use lighter shades of blue around the trapdoor exit (that leads back into the Great Hall - Area 2), to simulate a bit of light shining through into the Dungeon. You could also make the steps get darker in colour as they get nearer to the floor of the dungeon and further away from the light.

#### THE START AREA - AREA 11

This area has a lot of water in it and a good colour for the water would be a very light grey/blue which gives a more realistic effect than the normal dark blue that people often use (*how on earth did you know that I did that. Tony? - Ed*). The castle would look good in a very dark, nearly black shade of red to give it that eerie look. The surrounding grassland would suit a grey green shade and not a bright yellow green that is also often used (*I am cringing here, Tony - Ed*). The idea is to create a sinister looking place not a brightly coloured area.

#### THE ALCHEMISTS CHAMBER - AREA 4

This is a good place to go a bit mad with the use of colour. As it is a place of many books and potions, chemistry and sorcery objects you can add lots of bright coloured bottles, flasks etc.

#### THE LONG GALLERY - AREA 3

This is a good place to put some bright red and gold shields on the walls and perhaps some silver coloured armour/weapons such as swords, knights, maces etc, around this room. You could also add some evil looking pictures on the walls of the gallery.

These are just a few ideas for the use of colours and here are some ideas for extra puzzles that you can incorporate into your game to make it uniquely your own.

You could have some spikes appear from the ceiling or the floor in one room. You could also have a large round rock (use a sphere in Kit 2 or a few pyramids slotted together in Kit 1) appear from out of a wall and chase you if you do something wrong as in the Indiana Jones film. How about a giant hole appearing in the floor when you step on a certain tile or rug. Another idea for a puzzle is to make the walls or ceiling move inwards to shrink the room that you are in or you could try the chessboard puzzle on the floor from page 19 in issue 12 of the newsletter. Back issues available from Mandy. You could also have a jewel in one cage and a monster in another next to each other and make the player have to pull the right lever to open the cage containing the jewel and not the monster. How about a swinging pendulum across a doorway?

I hope these ideas give you the incentive to try and have a go at some puzzles in your game. Good luck!

## GRAND CHRISTMAS COMPETITION RESULTS

Here is the correct solution to the Christmas competition featured in the December/January newsletter:

HIDDEN WORDS:

Area	Cube	Pyramid
Art	Data	Reality
Attributes	Disk	Sound
Border	Freescape	Sphere
Clip	Kit	Virtual
Condition	Line	Window
Construction	Oblong	

The missing word from the grid is

DATA

All correct entries were put in the hat and the lucky winning name drawn out was:

ALASTAIR PACK of Old Colwyn!

Congratulations Alastair, your prize of the Flight Sim Toolkit is on its way to you! Well done!

\*\*\*\*\*

When Alastair sent in his competition entry he said that, as he felt sorry for Tony Hartley not being able to enter the competition, he would enclose a little quiz for everyone to take part. See how well you can do. The answers set out below but are written backwards.

### 3D KIT QUIZ By Alastair Pack - PC

#### QUESTIONS

1. You are all used to using three dimensions in the Kit, but do you know what the fourth dimension is?
2. Does this next FCL command exist in 3D Kit for 16/32 bit machines?

SETHEIGHT (P1)

3. How many different fades are there in Kit 2?

#### ANSWERS

1. Gnidrocca ot eht SREBMAHC HSILGNE YRANOITCID eht htrof noisnemid si emit.
2. Sey, ti seod. Hguohtla ton ni eht D3 TIK LAUNAM ti seod tsixe, yrt ti tuo!
3. Neetxis. Sereht eht slavedaf orez ot enin dna eht resu sedaf net ot neetfif - gnikam a latot fo neetxis ni lla.



## HINTS AND TIPS

By *Les Winstanley* - PC KIT 2

Being a relatively new subscriber to the User Group I'm not sure that that I have found hasn't been written about before, but here goes. I have found that it is possible for one object to be placed inside another's cube space by simply setting one of your object coordinates manually from the object attributes menu.

Here are a few useful tricks. Say you want to create a lot of similar but slightly different rooms (a hotel or block of flats for example). Using this technique all you have to do is design one room, fill the room with furniture (say a bed, table and chairs, armchair and wardrobe). Next copy all your furniture and make the original invisible. Now redesign the layout of your room by placing the copied objects in slightly different positions. Do this a few times, perhaps even redesigning your furniture. The only thing you have to do is to do a bit of programming to TOGVIS the furniture you require for your "different" rooms.

\*\*\*\*\*

## LATEST ADDITIONS TO THE PD LIST

### ENDURANCE

Written by Ozzie O'Mara for the Atari ST. This is a stand alone game written with 3D Kit 1.

The year is 2500 AD and the peace of the Galactic Federation hangs by a very fine thread. During these turbulent days unorthodox methods for promotion have been adopted. Commander Iff, your unit superior officer and whom, by chance, is also the sector overseer (I might just add he has not been the same since that atomix incidence! A stalwart to the new regime "make the grade or die".

The new hyper-space route is cutting a sway through the sector. Planets, moons and small suns are being demolished. Station 36, an old orbitor has been de-commissioned for this task. Its atomix core, once detonated, will set off a small nebular explosion (it beats the swinging ball). Your task is not a small one. You have to find and disarm the Harpey detonator, deactivate the missiles on the surface of the planet, find the power crystal which is the shuttle power source and escape the sector via the shuttle.

So the scene is set for a most enjoyable science fiction adventure. The game has been beautifully designed and the objects are extremely realistic and believable. The border, especially, is extremely well designed. There is a set of icons at the top of the screen which allow you to examine, pick up, use, put in your rucksack, etc whilst the lower part of the border is made up of the usual movement icons, a text window, save and load buttons and your timer and energy bars.

Be warned, this is not an easy game. Don't expect to get very far in just one sitting. Actually, just getting out of the first location is a mammoth task in itself. This game is addictive and if you decide to get this one then be prepared to spend a great deal of your time glued to the keyboard and almost tearing your hair out in frustration!

## USER GROUP PUBLIC DOMAIN LIBRARY

**DARKNESS CALLS** by James H Yusuf - AMIGA KIT 1

Stand alone game written with 3D Kit 1. Sci-fi game with eerie sound effects and excellent atmosphere.

**MOUNTAIN ADVENTURE** by Mieke Van Der Poll - AMIGA KIT 1 (1 meg )

Either stand alone or datafile format. Please state which. Game written with 3D Kit 1. Adventure within a mountain maze. So much to do it will keep you very busy for ages!

**PLANET OF THE DALEKS** by Steve Hilder - AMIGA KIT 1

Datafile and border format. Written with 3D Kit 1. This is a game for all Doctor Who fans. Those dastardly daleks are everywhere.

**ATLANTIS** by Mieke Van Der Poll - AMIGA (1 meg required)

Either stand alone or datafile format. Please state which. Game written with 3D Kit 1. Eerie and enjoyable underwater adventure. Excellent music and sound effects.

**MAGICAL MAZE** by Mieke Van Der Poll - AMIGA KIT 2

Stand alone or datafile format. Please state which. Beautifully structured maze adventure which utilizes most of the Kit 2 facilities beautifully.

**FAST TOWN** by Tony Hartley - AMIGA KIT 1

Converted to Amiga by Mieke Van Der Poll. Hundreds of objects, beautifully drawn to enable you to create your own realistic town. This is in datafile and border format with ready made towns too.

**FAST TOWN** by Tony Hartley - AMIGA KIT 2

Converted by Mieke Van Der Poll. Hundreds of objects beautifully drawn to enable you to create your own realistic town. Datafile and border format - ready to add your own Kit 2 special effects.

**E.F.T.P.O.T.C.M.** by Andrew Herbert - AMIGA KIT 1 & KIT 2

Stand alone game included called **ESCAPE FROM THE PLANET OF THE CARDBOARD MONSTERS**. More interesting is the whole suite of utilities on the disk to help you create stand alone games. Added bonus here is a virus checker and killer to deal with the dreaded SADDAM virus.

**MESSAGE DEMO ROUTINES** by J Hayes - AMIGA KIT 1

Datafile and border format. Routines showing how to scroll descriptive messages. Also includes small demo game.

**LANDSCAPE DEMONSTRATION DISK** by J Hayes - AMIGA KIT 1

Datafile and border format. Routines showing how to program an impressive "neverending" landscape.

**TUNES AND SCREENS** by Dominique Watson - AMIGA KIT 1 & KIT 2

Octamed player and thirteen or so original music pieces for you to use in your games or intro sequences. Also plenty of sci-fi type loading screens for you to use.

**UTILITIES DISK** by Stephen Moore - AMIGA KIT 1 & KIT 2

A useful suite of programs which will enable you to create loading screens etc for your stand alone games. Useful utility for reading different machine formats on your machine too.

**FLIGHT SIMULATOR DEMO** by Thomas Stufe - AMIGA KIT 1

Datafile format showing how you can program a flight simulator type program with 3D Kit.

**BUILDINGS** by Allan Hearn - AMIGA KIT 1

Datafile format showing various buildings ranging from Stone Henge to Salisbury Cathedral.

**SOUND SAMPLES** by Mieke Van Der Poll - AMIGA KIT 1

Contains the new MakeSampleBnk program together with no less than 26 different sound samples ready compiled into the file "various.bnk".

**INVENTORY ROUTINE** by J Hayes - AMIGA KIT 1

Datafile format. This suite of routines show you how to organise the players inventory and print what they are currently carrying.



### EXAMPLES by Juergen Hunke - AMIGA KIT 1

Datafile and border format. Lots of different and interesting objects for you to use in your datafiles if you wish.

### BORDERS by A J Bevan - AMIGA KIT 1 & KIT 2

Selection of borders for you to use if you feel that your artistic talents are not up to scratch.

### WAR OF THE WORLDS by Tony Hartley - ATARI ST KIT 2

Datafile and border but works like a stand alone game. Contains so many features, wonderful sound effects, eerie atmosphere. Excellent game should keep you busy for weeks. One of the best I've seen so far.

### ENDURANCE by Ozzie O'Mara - ATARI ST KIT 1

Stand alone game. Extremely well designed. Will keep you busy for a very long time. I thoroughly enjoyed it. It is addictive and frustrating too.

### INFILTRATION by Robin Ball - ATARI ST KIT 1

Excellent shareware stand alone game. Has that certain something that just keeps you going back for more.

### SPEILRAUM by Peter Ward - ATARI ST KIT 1

Stand alone game. First of a trilogy of 3D Kit games by Peter. I got lost in a bewildering maze of passages the first time I played. Most enjoyable.

### KAKRIVS by Peter Ward - ATARI ST KIT 1

Stand alone game. Second in the trilogy, I enjoyed this one better than the first. Take your Tardis and explore. You won't regret it.

### HYSULA by Peter Ward - ATARI ST KIT 1

Stand alone game. Third in the trilogy. If you enjoyed the other two games then go on and give yourself a treat.

### THE MAZE by David Sambrook - ATARI ST KIT 1

Stand alone format. This is the most addictive and infuriating maze type game that you will ever come across! I was enthralled for ages.

### WEST ONE by Frank Carr - ATARI ST KIT 1

Stand alone game. Take on the role of Harris Tweed, secret agent extraordinaire. Great border, sound effects and nice loading sequence. Beautifully designed game.

### FAST TOWN by Tony Hartley - ATARI ST KIT 1

For details see Fast Town Amiga Version.

### FAST CITY by Tony Hartley - ATARI ST KIT 2

Datafile and border format. Hundreds of beautifully designed buildings and objects to help you instantly design your own city. Should be seen to be believed! A real favourite.

### RANDOM BOXES CITY SKYLINE by Ronald Conell - ATARI ST KIT 1 & KIT 2

A paint package that allows you to generate a random city skyline. Menu driven and full instructions on the disk.

### SOUND UTILITIES by Juergen Hunke - ATARI ST KIT 1 & KIT 2

Two excellent programs to use with your sound samples. Full instructions enclosed on the disk.

### EXAMPLES by Juergen Hunke - ATARI ST KIT 1

For details see Examples Amiga version.

### BORDERS by Robin Ball - ATARI ST KIT 1 & KIT 2

Excellent suite of borders for people who would like a ready made border for their games.

### LIGHTING EFFECTS by Robin Ball - ATARI ST KIT 1

Datafiles showing just what can be done with careful planning to create lighting effects in your games.

All disks cost £1.50 each (overseas readers please add £1) and are available from Mandy Rodrigues at the usual user group address.

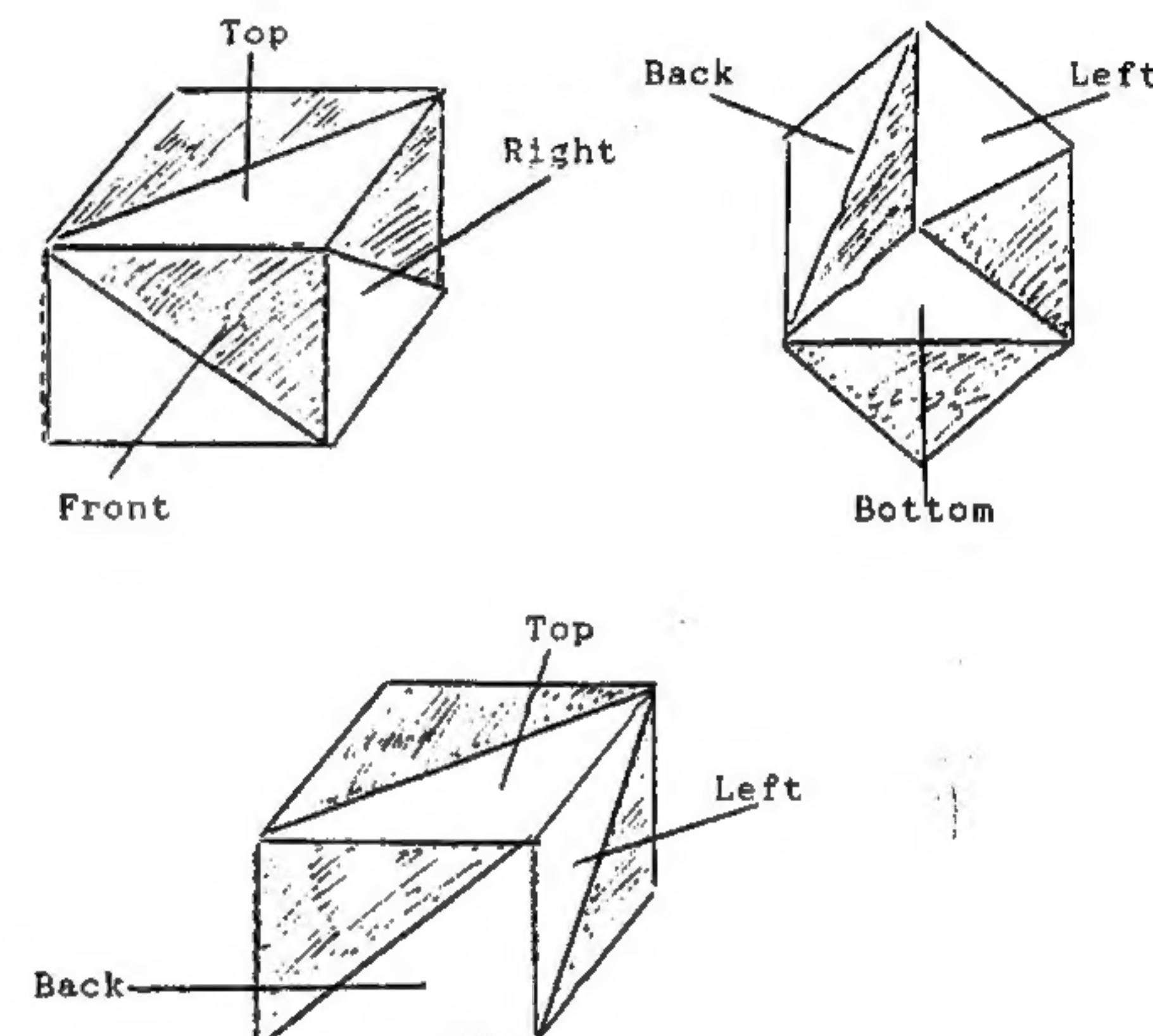
If you are interested in PC public domain then see the contents page of this issue for the address of Mark Rose who handles PC PD for us.

## FRUSTRATING FLEXIS

By Alastair Pack - PC KIT 2

Many people, including Mandy, have quite a lot of difficulty in finding a use for the flexicube object and, in fact, once they have started stretching and turning it about, can't even manage to get it back into its original shape once more. Here are a few pointers on how flexicubes can be handled.

The flexicube looks like this from each side. The left and right are decided from the position it was in when first created:



When you edit the flexicube you can move the point to any of eight different corners. Before you move it, move yourself around to where the point's corner is because the commonest problem, I find, is moving the point, which is operating on the other side of the cube which means I can't see exactly what is happening to the cube, but the small flashing white square, which shows what point is moving, shines through the flexicube.

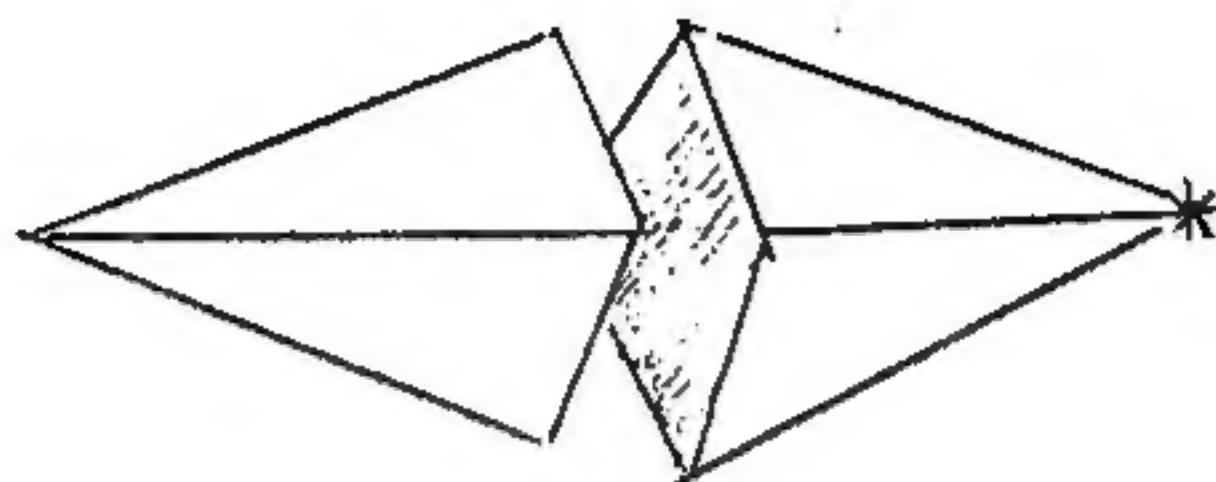
So I'm moving the point around, seeing the white square move, without seeing what is happening to the shape of the cube on the other side. That is why it is much better to move around until you are at the same side of the cube as the point and white square.

The point which is at the corner of the cube can move in any direction as long as it stays within its boundaries. This is where it gets a

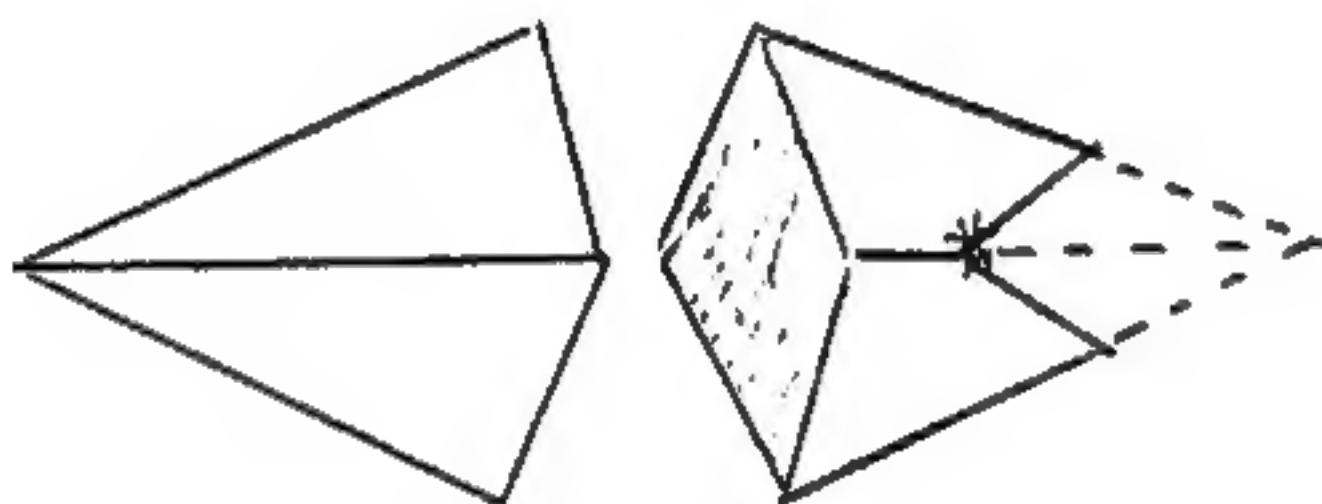


tiny bit harder.

The flexicube, as the shape of a cube, has to be imagined as two pyramids stuck together. The pyramid with the point is now the one that can be changed. The other pyramid on the opposite side of the cube cannot be changed at this time.

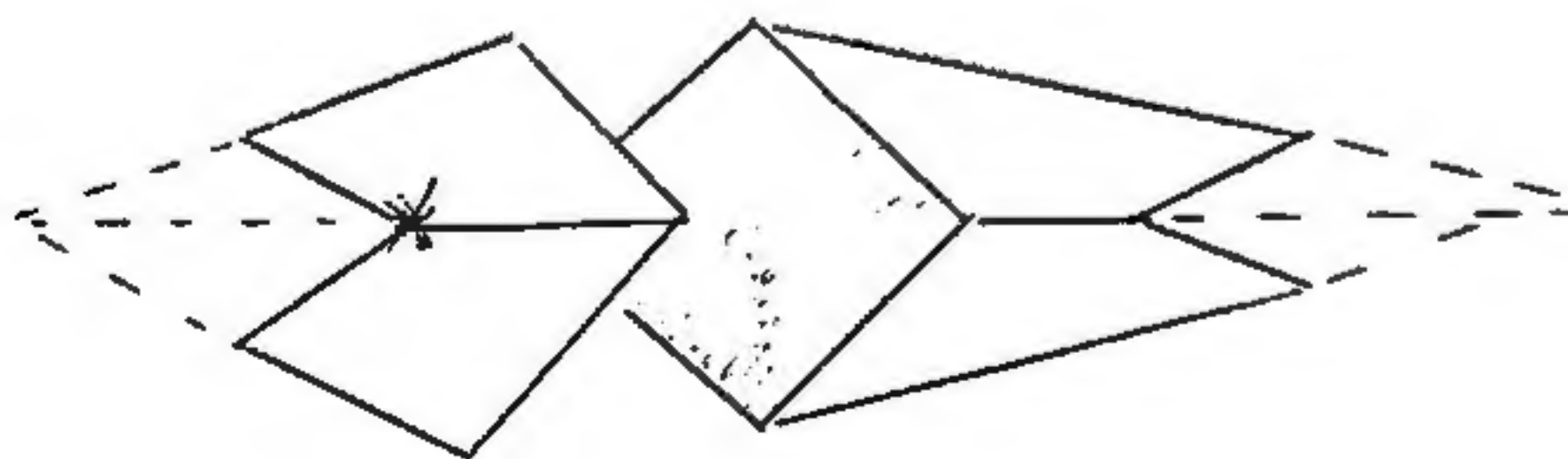


The point (the point is denoted by the asterisk), can be moved inwards only at this stage for it cannot exceed the boundaries of the common cube shape (the bounding cube) but it can move within them.



Here the point is moved into its pyramid, the cube shaped boundaries are shown as dotted lines. Remember that the two pyramids when put back together form a cube - you are imagining it as if it has been sliced down the centre, from opposite points.

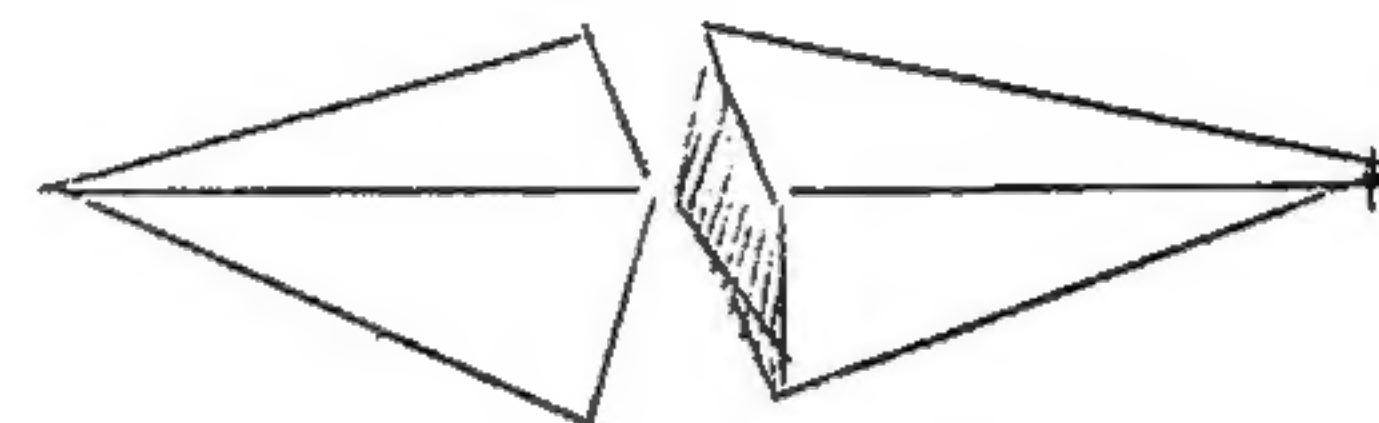
Now it gets a bit more complicated. If the pyramid tipped by the point in use has been deformed and the point of this side of the cube now points inwards, then you move the point along to another different corner of the flexicube. It could look like this:



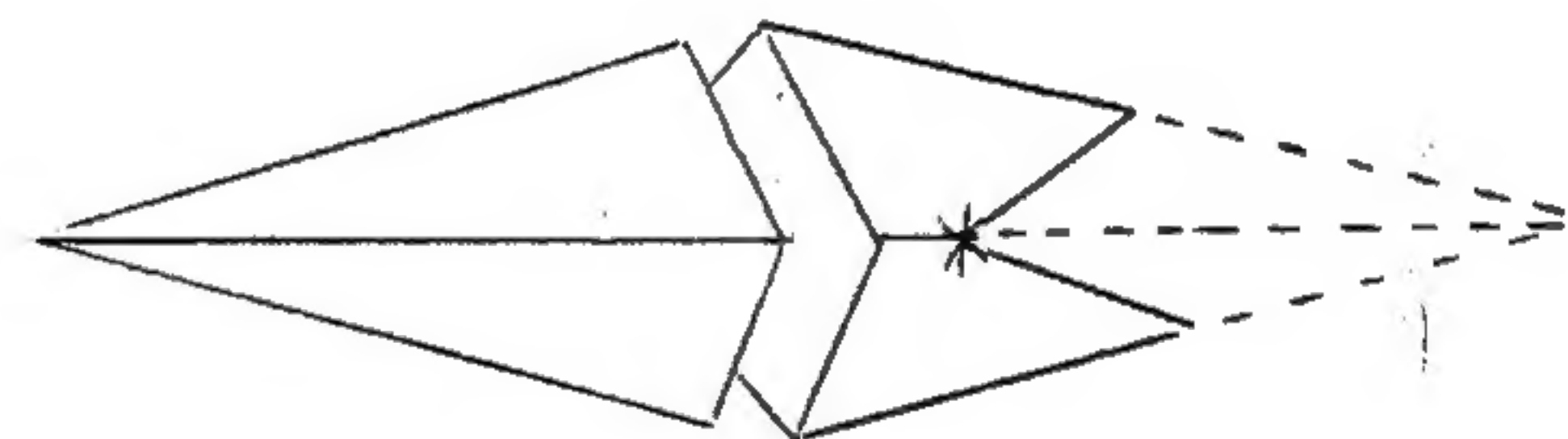
This looks like two opposite corners have collapsed inwards, surprisingly, two opposite corners HAVE collapsed inwards!

It may be worth pointing out, (excuse the pun), that each side of the flexicube is coloured in two different shades and the line between the colours is where the "hinges" are and although each triangle of colour can stretch or shrink as it were, it only folds around these colour divisions and the natural edges, but back to the main point...

If one point has been collapsed and then you move the point and collapse that corner, it could be easy to see, if you have two pyramids seen from above:

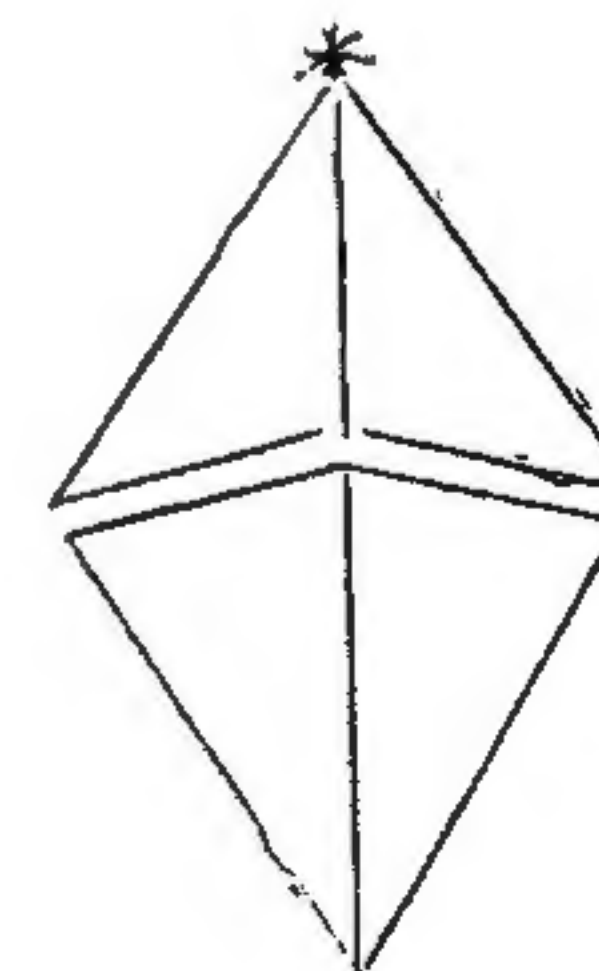


and one collapses:



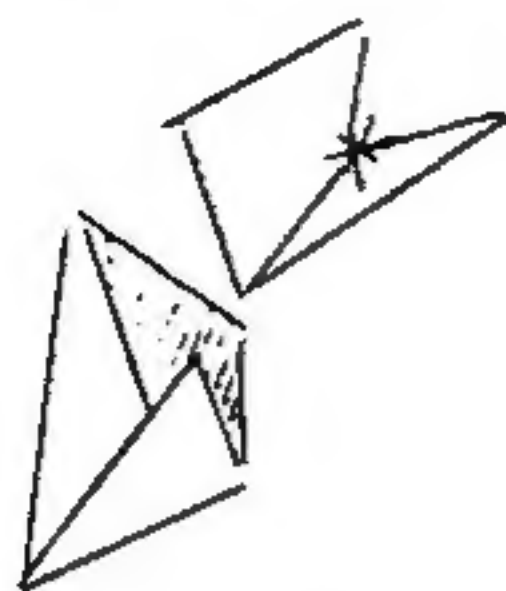
that this is easy to correct and change back to the original cube shape but if the point moves so that the pyramids are split like this:

then the collapse is also split





and now if you take the point and collapse it like this:



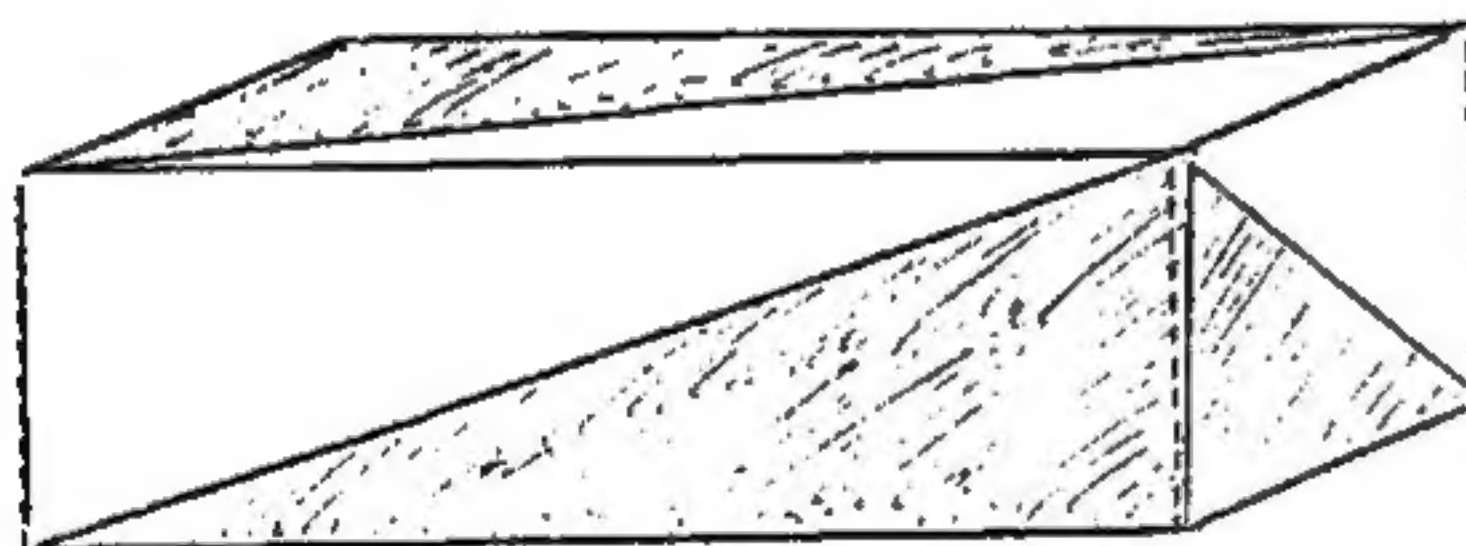
It is now much more complicated, However, what you see here is a 2D plan view. In 3D where the bottom points could be moved in as well the collapse could come from any direction. The flexicube can really start to change shape until it is almost impossible to tell which corner and which side is which.

If for instance, two corners are put together to make a point, lots of colour-joint-hinges have to really do some stretching and this makes them longer than normal sides and it may look like the flexicube has broken its boundaries as a cube.

And now we ask the question, what can the effort and time put into changing flexicubes really do for us?

Well one of the ways it can be used is to form a crown shape - rather like in the demo game that was put on the cover tape of Amiga Format. It did look rather fetching but I still don't know what it was supposed to be.

You could create a wall and colour each side in two different colours and call it modern art like this:



You could colour all the sides blue and cyan and shrink the flexicube, and deform it until it looks like a crystal.

Do the same but colour it pale yellow and put it in a brown bowl labelled in white saying "Mashed Potato".

The edited flexicube is very versatile when it comes to creating futuristic looking buildings. Yacht sails and things of that sort. Apart from that, I don't really know!

Hope this has been of some use to someone in discovering the hidden secrets, stored only in the darkest pits of Domarks Dungeons of the dreaded flexicube.

## Loading screens for the PC By John Clarke

I have found a way that will allow PC user to have front end menu systems on their games that will allow the user to either play the game or read the instructions first.

Before we start we will have to write a new command. This command will allow the user to press a key and the ASCII code of that key will be returned to DOS as a error code.

To write this new command you will need to have your copy of DEBUG.COM handy (this is supplied with all versions of DOS). The program that will be used in this article was published in the August edition of PC Direct. I would have written a version of it myself but there is really no point in re-inventing the wheel.

Load up a text editor that can store text as ASCII files and then type this in:

```
a
mov ah,01
int 21
mov ah,4c
int 21
(This line must be blank!)
ngetccode.com
r
rcx
0008
w
q
```

When you have done this save the file as GETCCODE.DEB and then quit your text editor. Then you have to type DEBUG < GETCCODE.DEB and the new command will be created. If you look on your disk now you will find a file called GETCCODE.COM.

Now type GETCCODE and press a letter on your keyboard. As you can see this program will display the letter the user has pressed which is fine if you want it to do this. If you don't want it to display the letter that the user has pressed you will have to change a part of the program. You will have to change the line that says mov ah,01 to mov ah,07.

Now that we have our new command we can start to write the menu batch file. So load up the text editor and type in the following listing. Please note that when you need spaces after a ECHO command you will have to hold down the ALT key and type 2 5 5 and then release the ALT key. You will have to do this for every space that you need or DOS will give you an error message.



cls  
echo.  
echo.  
echo  
echo.  
echo  
echo.  
echo  
echo.  
echo.  
echo  
echo.  
echo  
echo.  
echo  
echo.  
echo  
echo  
echo  
echo

## A PROGRAMMER

BY DOMARK\INCENTIVE

**PRESS :**

A) FOR INSTRUCTIONS  
B) TO LOAD THE GAME  
Q) TO QUIT

```
getacode
if errorlevel 114 GOTO START
if errorlevel 113 GOTO END
if errorlevel 98 GOTO LOAD-GAME
if errorlevel 97 GOTO INSTRUCTIONS
if errorlevel 81 GOTO END
if errorlevel 66 GOTO LOAD-GAME
if errorlevel 65 GOTO INSTRUCTIONS
GOTO START
```

```

:INSTRUCTIONS
type instructions.hlp | more
echo
PAUSE > NULL
GOTO START

```

PRESS ANY KEY TO CONTINUE

: LOAD-GAME  
FUDDER

```
: END
cd\
cls
```

Store this file as game.bat and place in in the directory that was created when you compiled your game (EG C:\\_GAME). Now write some user instructions using your text editor and save them as INSTRUCTIONS.HLP.

Firstly the batch file will display your menu. Then it will use the GETCCODE command. As I said before this new command will allow the user to press a key and the ASCII code of that key will be returned to DOS as a error code. Error code can be detected by the usage of the ERRORLEVEL command. If you look at the section of commands that say IF ERRORLEVEL ... you will see that there are 2 places where it says GOTO START. The reason why I have done this is to ensure that if the user selected a option that is not available it will return the user to the menu. You will also notice that the error codes are in descending order. When you use a IF ERRORLEVEL.... command you have to place the codes in descending order or they will never be processed.

The ASCII codes for letters A TO Z are 65 to 90  
The ASCII codes for letters a to z are 97 to 122

The first errorlevel command must say GOTO START and it must also have the highest error code. Because the ASCII code for the letter q is 113 the error code for the first IF ERRORLEVEL ... command must be 114. You can now enter all of your other IF ERRORLEVEL ... commands. The GOTO START at the bottom is there to ensure that is the error code does not exist the user is placed back at the main menu.

If you look at the ERRORLEVEL commands it tells the computer which set of commands for each error code. So if the user presses A the computer will display the instruction file, allow the user to press a key to continue and then return to the main menu.

If the user selects B it will run the game and If the User selects Q it will stop running.

When writing these batch file if you want a piece of text to appear in the center of a line subtract the length of the text from 80 and divide the result by 2. Round this result up to a whole number if you need too. This will give you the number of spaces that you will need to put after the ECHO command.



# 3D CONSTRUCTION KIT

USED WITH

NEWSLETTER

ISSUE 2 February 1994

